

GSFC JPSS CMO  
02/03/2015  
Released

**Joint Polar Satellite System (JPSS) Ground Project  
Code 474  
474-00448-01-04**

**Joint Polar Satellite System (JPSS)  
Algorithm Specification Volume I:  
Software Requirement Specification (SRS)  
for the OMPS TC RDR/SDR**



National Aeronautics and  
Space Administration

Goddard Space Flight Center  
Greenbelt, Maryland

**Joint Polar Satellite System (JPSS) Algorithm Specification  
Volume I: Software Requirement Specification (SRS) for the  
OMPS TC RDR/SDR  
JPSS Review/Approval Page**

**Prepared By:**

---

JPSS Ground System

(Electronic Approvals available online at [https://jpssmis.gsfc.nasa.gov/frontmenu\\_dsp.cfm](https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm))

**Approved By:**

---

Robert M. Morgenstern

Date

JPSS Ground Project Mission Systems Engineering Manager

(Electronic Approvals available online at [https://jpssmis.gsfc.nasa.gov/frontmenu\\_dsp.cfm](https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm))

**Approved By:**

---

Daniel S. DeVito

Date

JPSS Ground Project Manager

(Electronic Approvals available online at [https://jpssmis.gsfc.nasa.gov/frontmenu\\_dsp.cfm](https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm))

**Goddard Space Flight Center  
Greenbelt, Maryland**

## Preface

This document is under JPSS Ground Project configuration control. Once this document is approved, JPSS approved changes are handled in accordance with Class I and Class II change control requirements as described in the JPSS Configuration Management Procedures, and changes to this document shall be made by complete revision.

Any questions should be addressed to:

JPSS Configuration Management Office  
NASA/GSFC  
Code 474  
Greenbelt, MD 20771

## Change History Log

<b>Revision</b>	<b>Effective Date</b>	<b>Description of Changes (Reference the CCR &amp; CCB/ERB Approve Date)</b>
Rev -	August 8, 2013	This version incorporates 474-CCR-13-1117 which was approved by the JPSS Ground ERB on the effective day shown.
Rev A	Jan 23, 2014	This version incorporates 474-CCR-14-1355 which was approved by JPSS Ground ERB on the effective date shown.
Rev A1	Oct 23, 2014	This version incorporates 474-CCR-14-2091 which was approved by the JPSS Ground ERB for CO10 on the effective date shown.
Rev B	Oct 23, 2014	This version incorporates 474-CCR-14-1721, 474-CCR-14-1741, 474-CCR-14-1793, 474-CCR-14-1781, and 474-CCR-14-2074 which was approved by JPSS Ground ERB on the effective date shown.

**List of TBx Items**

TBx	Type	ID	Text	Action
None				

## Table of Contents

1	Introduction.....	1
1.1	Identification .....	2
1.2	Algorithm Overview .....	2
1.3	Document Overview .....	2
2	Related Documentation.....	4
2.1	Parent Documents .....	4
2.2	Applicable Documents.....	4
2.3	Information Documents .....	4
3	Algorithm Requirements.....	6
3.1	States and Modes .....	6
3.1.1	Normal Mode Performance.....	6
3.1.2	Graceful Degradation Mode Performance .....	7
3.2	Algorithm Functional Requirements.....	7
3.2.1	Product Production Requirements .....	7
3.2.2	Algorithm Science Requirements .....	7
3.2.3	Algorithm Exception Handling.....	8
3.3	External Interfaces .....	8
3.3.1	Inputs.....	8
3.3.2	Outputs.....	16
3.4	Science Standards .....	17
3.5	Metadata Output.....	17
3.6	Quality Flag Content Requirements.....	17
3.7	Data Quality Notification Requirement .....	18
3.8	Adaptation.....	18
3.9	Provenance Requirements.....	18
3.10	Computer Software Requirements .....	19
3.11	Software Quality Characteristics .....	19
3.12	Design and Implementation Constraints.....	19
3.13	Personnel Related Requirements .....	19
3.14	Training Requirements.....	19
3.15	Logistics Related Requirements .....	19
3.16	Other Requirements .....	20
3.17	Packaging Requirements.....	20
3.18	Precedence and Criticality .....	20
Appendix A.	Requirements Attributes .....	21

**List of Figures**

Figure: 3-1 OMPS TC RDR/SDR Data Flows ..... 10

**List of Tables**

Table: 1-1 JPSS Ground System Services ..... 2

Table: 3-1 SV-6 Systems Resource Flow Matrix: OMPS TC RDR/SDR ..... 11

## 1 Introduction

The Joint Polar Satellite System (JPSS) is the National Oceanic and Atmospheric Administration's (NOAA) next-generation operational Earth observation program that acquires and distributes global environmental data primarily from multiple polar-orbiting satellites. The program plays a critical role in NOAA's mission to understand and predict changes in weather, climate, oceans and coasts, and the space environment, which support the Nation's economy and protect lives and property. JPSS polar-orbiting satellites provide continued environmental observation that is currently performed by NOAA Polar Operational Environment Satellites (POES). The first JPSS satellite mission, the Suomi National Polar-orbiting Partnership (S-NPP) satellite, was successfully launched in October 2011. It will be followed by two JPSS satellites: JPSS-1, planned for launch in fiscal year (FY) 2017, with JPSS-2 to follow in FY2022.

In addition to the JPSS Program's own satellites operating in the 1330 Local Time of the Ascending Node (LTAN) orbit, NOAA also leverages mission partner assets for better global coverage. These partner assets include the Department of Defense (DoD) operational weather satellites (in the 1730 – 1930 LTAN orbit), European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) Meteorological Operational (Metop) satellites (in the 2130 LTAN orbit) and Japanese Aerospace Exploration Agency (JAXA) Global Change Observation Mission-Water (GCOM-W) satellites (in the 1330 LTAN orbit). JPSS routes Metop data from the McMurdo Station, Antarctica to the EUMETSAT facility in Darmstadt, Germany and EUMETSAT provides Metop data to NOAA. For GCOM, JPSS routes the GCOM-W data from Svalbard, Norway through the NOAA Satellite Operations Facility (NSOF) in Suitland, MD to the JAXA facility in Japan. The JPSS program also processes GCOM-W data and delivers GCOM-W products to the JPSS users who have JAXA permissions.

The JPSS Program provides data acquisition and routing support to the Defense Meteorological Satellite Program (DMSP) and the Coriolis Program. The JPSS Program provides data routing support to the National Science Foundation (NSF), as well as the National Aeronautics and Space Administration (NASA) Space Communication and Navigation (SCaN)-supported missions, which include the Earth Observing System (EOS). As part of the agreements for the use of McMurdo Station, JPSS will provide communications/network services for the NSF between McMurdo Station, Antarctica and Centennial, Colorado.

As a multi-mission ground infrastructure, the JPSS Ground System supports the heterogeneous constellation of the before-mentioned polar-orbiting satellites both within and outside the JPSS Program through a comprehensive set of services as listed in Table 1-1.

**Table: 1-1 JPSS Ground System Services**

<b>Service</b>	<b>Description</b>
Enterprise Management and Ground Operations	Provides mission management, mission operations, ground operations, contingency management and system sustainment
Flight Operations	Provides launch support and early orbit operations, telemetry and commanding, orbital operations, mission data playback, payload support, flight software upgrade, flight vehicle simulation, and disposal at the end of mission life
Data Acquisition	Provides space/ground communications for acquiring mission data
Data Routing	Provides routing of telemetry, mission and/or operations data through JPSS' global data network
Data Product Generation	Provides the processing of mission data to generate and distribute raw, sensor, environmental, and ancillary data products
Data Product Calibration and Validation	Provides calibration and validation of the data products
Field Terminal Support	Provides development and operational support to the Field Terminal customers

## 1.1 Identification

This SRS provides requirements for OMPS (Ozone Mapping and Profiler Suite) Nadir Total Column (NTC) Raw Data Records (RDRs) and Sensor Data Records (SDRs). OMPS measures stratospheric ozone through the measurement of backscattered ultraviolet (UV) radiances. OMPS Nadir (OMPS-N) system consists of two instruments, a Nadir Total Column Mapper (NM) and a Nadir Profiler (NP). The nadir total column sensor has a focal plane UV grating spectrometer that provides measurements between 300 to 420 nm (300 to 380 nm for S-NPP), with a spectral resolution of 0.45 nm. The total cross-track field of view is 110 degrees.

## 1.2 Algorithm Overview

The Nadir Total Column (NTC or TC) ozone SDR is generated from the RDR for the total column focal plane of the OMPS instrument. The SDR has spatial resolution of 50 km. The SDR processing produces an earth-scene SDR and a calibration SDR from the backscatter of solar radiation. The nadir total column earth scene SDR provides raw counts, count corrections, and calibrated earth and sun radiances for subsequent EDR processing into a measurement of total column ozone. The calibration SDR is used for calibration maintenance purpose. The OMPS system will produce two JPSS EDRs, Ozone Total Column (TC) and Ozone Nadir Profile (NP).

The OMPS algorithms include the following:

1. The Nadir Total Column Ozone SDR algorithm
2. The Nadir Profile Ozone SDR algorithm
3. The Nadir Total Column Ozone Algorithm
4. The Nadir Profile Ozone Algorithm

## 1.3 Document Overview

<b>Section</b>	<b>Description</b>
Section 1	Introduction – Provides a brief overview of the JPSS Ground System and the relevant algorithm, as reference material only.
Section 2	Related Documentation – Lists related documents and identifies them as Parent,

Section	Description
	Applicable, or Information Documents such as, MOAs, MOUs, technical implementation agreements, as well as Data Format specifications. This section also establishes an order of precedence in the event of conflict between two or more documents.
Section 3	Algorithm Requirements – Provides a summary of the science requirements for the products covered by this volume.
Appendix A	Requirements Attributes – Provides the mapping of requirements to verification methodology and attributes.

## 2 Related Documentation

The latest JPSS documents can be obtained from URL:

[https://jpssmis.gsfc.nasa.gov/frontmenu\\_dsp.cfm](https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm). JPSS Project documents have a document number starting with 470, 472 or 474 indicating the governing Configuration Control Board (CCB) (Program, Flight, or Ground) that has the control authority of the document.

### 2.1 Parent Documents

The following reference document(s) is (are) the Parent Document(s) from which this document has been derived. Any modification to a Parent Document will be reviewed to identify the impact upon this document. In the event of a conflict between a Parent Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Doc. No.	Document Title
470-00067	Joint Polar Satellite System (JPSS) Ground System Requirements Document (GSRD)
470-00067-02	Joint Polar Satellite System (JPSS) Ground System Requirements Document (GSRD), Vol. 2 - Science Product Specification
474-00448-01-01	Joint Polar Satellite System (JPSS) Algorithm Specification Volume I: Software Requirements Specification (SRS) for the Common Algorithms

### 2.2 Applicable Documents

The following document(s) is (are) the Applicable Document(s) from which this document has been derived. Any modification to an Applicable Document will be reviewed to identify the impact upon this document. In the event of conflict between an Applicable Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Doc. No.	Document Title
474-00029	Joint Polar Satellite System (JPSS) OMPS NADIR Total Column Ozone Algorithm Theoretical Basis Document (ATBD)
474-00448-02-04	Joint Polar Satellite System (JPSS) Algorithm Specification Vol II: Data Dictionary for OMPS Total Column RDR/SDR
474-00448-04-04	Joint Polar Satellite System (JPSS) Algorithm Specification Vol IV: Software Requirements Specification Parameter File (SRSPF) for OMPS Total Column RDR/SDR

### 2.3 Information Documents

The following documents are referenced herein and amplify or clarify the information presented in this document. These documents are not binding on the content of this document.

Doc. No.	Document Title
474-00333	Joint Polar Satellite System (JPSS) Ground System (GS) Architecture Description Document (ADD)
474-00054	Joint Polar Satellite System (JPSS) Ground System (GS) Concept of Operations (ConOps)

Doc. No.	Document Title
470-00041	Joint Polar Satellite System (JPSS) Program Lexicon
474-00448-03-04	Joint Polar Satellite System (JPSS) Algorithm Specification Volume III: Operational Algorithm Description (OAD) for the OMPS Total Column RDR/SDR
429-05-02-42	Joint Polar Satellite System (JPSS) Mission Data Format Control Book National Polar-Orbiting Operational Environmental Satellite System (NPOESS) Preparatory Project (NPP) (MDFCB)
472-00251	Joint Polar Satellite System (JPSS) Mission Data Format Control Book for JPSS-1
472-00331	Joint Polar Satellite System-1 (JPSS-1) Ozone Mapping and Profiler Suite (OMPS) Mission Data Packet Structures

### 3 Algorithm Requirements

#### 3.1 States and Modes

##### 3.1.1 Normal Mode Performance

SRS.01.04\_487 The OMPS Nadir Total Column algorithm shall calculate the earth view radiance with an albedo calibration accuracy of 2%.

*Rationale:* The accuracy values of the earth view radiance with an albedo calibration were flowed down from the Level 1 and Level 2 documents.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_488 The OMPS Nadir Total Column algorithm shall calculate the earth view radiance with spectral pixel-to-pixel calibration accuracy of 0.5%.

*Rationale:* The accuracy values of the pixel-to-pixel calibration were flowed down from the Level 1 and Level 2 documents.

*Mission Effectivity:* JPSS-1, JPSS-2

SRS.01.04\_489 The OMPS Nadir Total Column algorithm shall calculate the earth view radiance holding the out-of-band stray light to less than 1% at all wavelengths.

*Rationale:* The limiting values of the out-of-band stray light were flowed down from the Level 1 and Level 2 documents.

*Mission Effectivity:* JPSS-1, JPSS-2

SRS.01.04\_658 The OMPS Nadir Total Column algorithm shall calculate the earth view radiance over the wavelength range of 302 to 382 nm.

*Rationale:* The wavelength range of the earth view radiance was flowed down from the Level 1 and Level 2 documents.

*Mission Effectivity:* S-NPP

SRS.01.04\_490 The OMPS Nadir Total Column algorithm shall calculate the earth view radiance over the wavelength range of 300 to 420 nm.

*Rationale:* The wavelength range of the earth view radiance was flowed down from the Level 1 and Level 2 documents.

*Mission Effectivity:* JPSS-1, JPSS-2

SRS.01.04\_659 The OMPS Nadir Total Column algorithm shall calculate the earth view radiance with a horizontal cell size of 50 km at nadir.

*Rationale:* The horizontal cell size of the earth view radiance was flowed down from the Level 1 and Level 2 documents.

*Mission Effectivity:* S-NPP

SRS.01.04\_491 The OMPS Nadir Total Column algorithm shall calculate and/or aggregate the earth view radiance with a horizontal cell size of 50 km or less at nadir.

*Rationale:* The horizontal cell size of the earth view radiance was flowed down from the Level 1 and Level 2 documents.

*Mission Effectivity:* JPSS-1, JPSS-2

SRS.01.04\_661 The OMPS Nadir Total Column SDR Geolocation algorithm computation shall have a one-sigma mapping uncertainty of 5 km.

*Rationale:* The requirement is derived from L1RD requirements for Ozone NTC EDR.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

### **3.1.2 Graceful Degradation Mode Performance**

Not applicable.

## **3.2 Algorithm Functional Requirements**

### **3.2.1 Product Production Requirements**

Not applicable.

### **3.2.2 Algorithm Science Requirements**

SRS.01.04\_73 The OMPS Nadir Total Column Calibration SDR software shall incorporate a computing algorithm provided for TC Science calibration data.

*Rationale:* The Nadir TC science calibration data is one of OMPS TC SDR products. The SDR software through its computing algorithm must produce the Total Column science calibration data. The OMPS NADIR Total Column Ozone ATBD (474-00029) provides details on the algorithm science.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_492 The OMPS Nadir Total Column SDR software shall incorporate a computing algorithm provided for earth-view radiances.

*Rationale:* The Nadir TC earth-view radiance data is one of OMPS TC SDR products. The SDR software through its computing algorithm must produce the Total Column earth view radiance data. The OMPS NADIR Total Column Ozone ATBD (474-00029) provides details on the algorithm science.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_493 The OMPS Nadir Total Column SDR software shall incorporate a computing algorithm provided for auxiliary science and calibration parameters reported in the SDR.

*Rationale:* The Nadir TC auxiliary science and calibration parameters are part of OMPS TC SDR products. The SDR software through its computing algorithm must produce the Nadir TC

auxiliary science and calibration parameters. The OMPS NADIR Total Column Ozone ATBD (474-00029) provides details on the algorithm science.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

### 3.2.3 Algorithm Exception Handling

SRS.01.04\_107 The OMPS Nadir Total Column SDR software shall set the <FillField> values to <FillValue> for <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC\_Science\_SDR><fill>.

*Rationale:* The SDR software through its computing algorithm must fill the OMPS Nadir TC SDR values based on the established fill conditions to satisfy exclusion and fill conditions.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

## 3.3 External Interfaces

### 3.3.1 Inputs

SRS.01.04\_76 The OMPS Nadir Total Column Calibration SDR software shall incorporate inputs specified in Table 3-1.

*Rationale:* The SDR generation software must be able to receive and process the resource interaction items shown in Table 3-1 in order to produce the intended OMPS Nadir TC Calibration SDR products.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_100 The OMPS Nadir Total Column SDR software shall incorporate inputs specified in Table 3-1.

*Rationale:* The SDR generation software must be able to receive and process the resource interaction items shown in Table 3-1 in order to produce the intended OMPS TC SDR products.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_119 The OMPS Nadir Total Column SDR Geolocation software shall incorporate inputs specified in Table 3-1.

*Rationale:* The SDR generation software must be able to receive and process the resource interaction items shown in Table 3-1 in order to produce the intended OMPS TC SDR geolocation products.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_662 The OMPS Nadir Total Column SDR software shall ingest input tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS NP RDR/SDR (474-00448-02-04).

*Rationale:* This defines the formats for Lookup Tables, and Processing Coefficients for input into the algorithm module.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

Table 3-1 and Figure 3-1 are best viewed together since they describe the processes governed by this SRS in different ways. The figure diagrams the data flowing into, out of, and within the code governed by this SRS. The table lists these same data interactions as well as all downstream dependencies for outputs from this SRS.

Each row in the table describes a single software interaction – data flowing from one software item to another. The data is listed in the first column. The second column includes the mnemonic or short name for the data. Blanks indicate there is no mnemonic. The third and fourth columns contain the SRS that generates the data product(s) in the first column, and the SRS that receives those products. The final two columns contain the actual function name in Algorithm Development Library (ADL) that produces those products, and the function that inputs those products. The SRS's titled “Ingest MSD” and “Store/Retrieve” are non-existent SRS's functioning as data handling for the IDPS. The software functions “Store Products” and “Retrieve Products” are similar non-existent functions that operate as IDPS data handling.

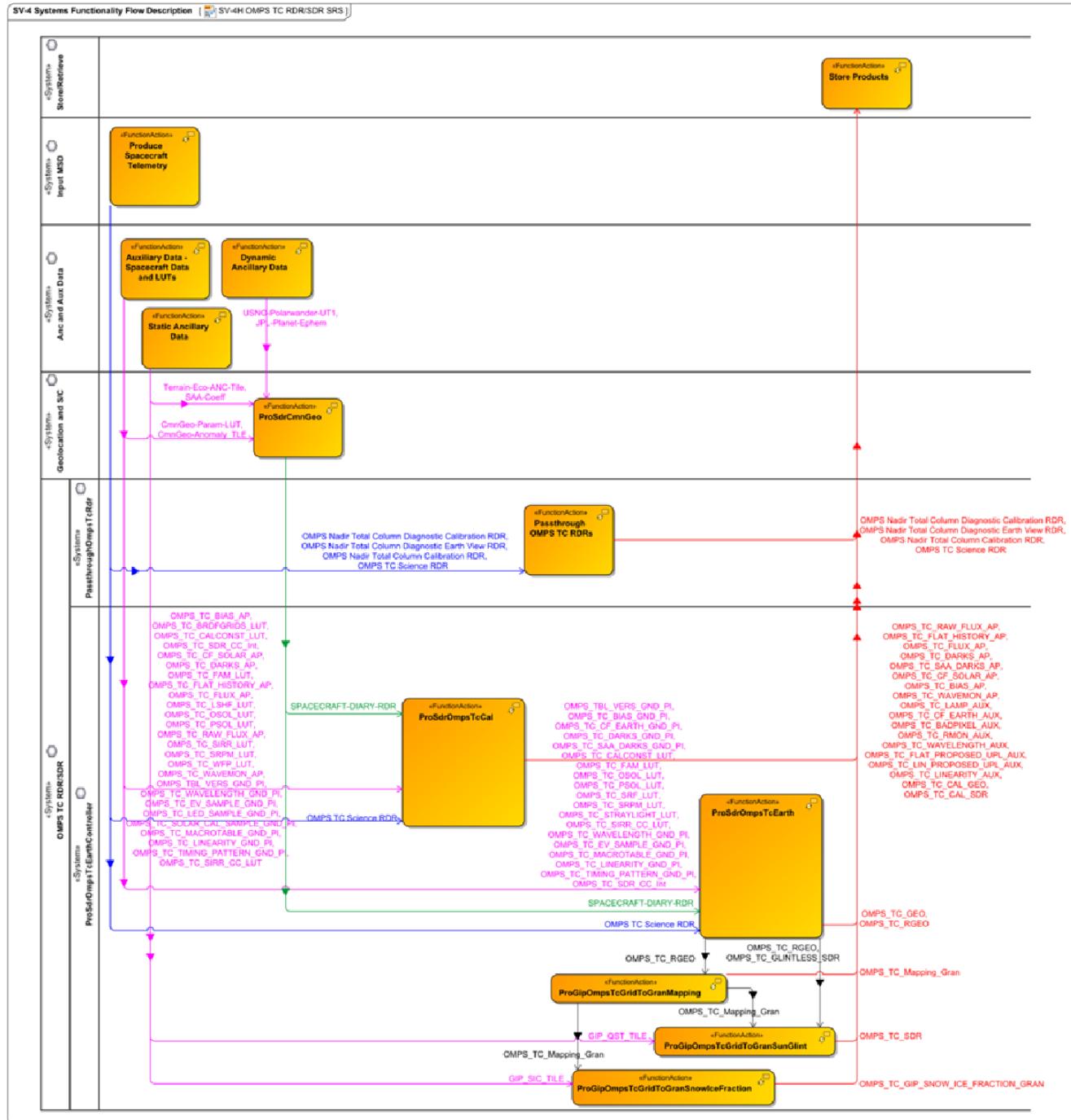


Figure: 3-1 OMPS TC RDR/SDR Data Flows

**Table: 3-1 SV-6 Systems Resource Flow Matrix: OMPS TC RDR/SDR**

Data Product Name	Mnemonic or Short Name, if applicable	Source SRS	Receiving SRS	Sending Function	Receiving Function
OMPS Nadir Total Column Diagnostic Calibration RDR OMPS Nadir Total Column Diagnostic Earth View RDR OMPS Nadir Total Column Calibration RDR OMPS TC Science RDR	RDRE-OMPS-C0038 RDRE-OMPS-C0050 RDRE-OMPS-C0051 RDRE-OMPS-C0031	Input MSD	OMPS TC RDR/SDR	Produce Spacecraft Telemetry	Passthrough OMPS TC RDRs
OMPS Nadir Total Column Diagnostic Calibration RDR OMPS Nadir Total Column Diagnostic Earth View RDR OMPS Nadir Total Column Calibration RDR OMPS TC Science RDR	RDRE-OMPS-C0038 RDRE-OMPS-C0050 RDRE-OMPS-C0051 RDRE-OMPS-C0031	OMPS TC RDR/SDR	Store/Retrieve	Passthrough OMPS TC RDRs	Store Products
OMPS_TC_RGEO	OMPS-TC-GEO	OMPS TC RDR/SDR	OMPS TC RDR/SDR	ProSdrOmpsTcEarth	ProGipOmpsTcGridTo GranMapping
GIP_SIC_TILE	IMPE_VGSC_R0100	Anc and Aux Data	OMPS TC RDR/SDR	Static Ancillary Data	ProGipOmpsTcGridTo GranSnowIceFraction
OMPS_TC_Mapping_Gran		OMPS TC RDR/SDR	OMPS TC RDR/SDR	ProGipOmpsTcGridTo GranMapping	ProGipOmpsTcGridTo GranSnowIceFraction
GIP_QST_TILE		Anc and Aux Data	OMPS TC RDR/SDR	Static Ancillary Data	ProGipOmpsTcGridTo GranSunGlint
OMPS_TC_GEO OMPS_TC_GLINTLES_S_SDR	OMPS-TC-GEO	OMPS TC RDR/SDR	OMPS TC RDR/SDR	ProSdrOmpsTcEarth	ProGipOmpsTcGridTo GranSunGlint
OMPS_TC_Mapping_Gran		OMPS TC RDR/SDR	OMPS TC RDR/SDR	ProGipOmpsTcGridTo GranMapping	ProGipOmpsTcGridTo GranSunGlint

Data Product Name	Mnemonic or Short Name, if applicable	Source SRS	Receiving SRS	Sending Function	Receiving Function
OMPS_TC_BIAS_AP	NP_NU-LM0240-002	Anc and Aux Data	OMPS TC RDR/SDR	Auxiliary Data - Spacecraft Data and LUTs	ProSdrOmpsTcCal
OMPS_TC_BRDFGRI	NP_NU-LM0240-017				
DS_LUT	NP_NU-LM0240-008				
OMPS_TC_CALCONS	DP_NU-LM2020-001				
T_LUT	NP_NU-LM0240-005				
OMPS_TC_SDR_CC_Inf	NP_NU-LM0240-000				
OMPS_TC_CF_SOLA_R_AP	NP_NU-LM0240-009				
OMPS_TC_DARKS_AP	NP_NU-LM0240-003				
OMPS_TC_DARKS_AP	NP_NU-LM0240-006				
OMPS_TC_FAM_LUT	NP_NU-LM0240-018				
OMPS_TC_FLAT_HIS_TORY_AP	NP_NU-LM0240-010				
OMPS_TC_FLUX_AP	NP_NU-LM0240-011				
OMPS_TC_FLUX_AP	NP_NU-LM0240-007				
OMPS_TC_FLUX_AP	NP_NU-LM0240-012				
OMPS_TC_FLUX_AP	NP_NU-LM0240-019				
OMPS_TC_LSHF_LU_T	NP_NU-LM0240-014				
OMPS_TC_OSOL_LU_T	NP_NU-LM0240-004				
OMPS_TC_PSOL_LU_T	NP_NU-LM0240-130				
OMPS_TC_RAW_FLUX_AP	NP_NU-LM0240-026				
OMPS_TC_SIRR_LUT	NP_NU-LM0240-022				
OMPS_TC_SRPM_LU_T	NP_NU-LM0240-024				
OMPS_TC_WFP_LUT	NP_NU-LM0240-025				
OMPS_TC_WAVEMON_AP	NP_NU-LM0240-023				
OMPS_TBL_VERS_GND_PI	NP_NU-LM0240-021				
OMPS_TC_WAVELENGTH_GND_PI	NP_NU-LM0240-020				
OMPS_TC_EV_SAMPLE_GND_PI	NP_NU-LM0240-021				
OMPS_TC_LED_SAMPLE_GND_PI	NP_NU-LM0240-015				

Data Product Name	Mnemonic or Short Name, if applicable	Source SRS	Receiving SRS	Sending Function	Receiving Function
OMPS_TC_SOLAR_C AL_SAMPLE_GND_PI OMPS_TC_MACROT_ABLE_GND_PI OMPS_TC_LINEARITY_GND_PI OMPS_TC_TIMING_PATTERNS_GND_PI OMPS_TC_SIRR_CC_LUT					
SPACECRAFT-DIARY-RDR	RDRE-SCAE-C0030	Geolocation and S/C	OMPS TC RDR/SDR	ProSdrCmnGeo	ProSdrOmpsTcCal
OMPS TC Science RDR	RDRE-OMPS-C0031	Input MSD	OMPS TC RDR/SDR	Produce Spacecraft Telemetry	ProSdrOmpsTcCal
OMPS_TBL_VERS_GND_PI OMPS_TC_BIAS_GND_PI OMPS_TC_CF_EARTH_GND_PI OMPS_TC_DARKS_GND_PI OMPS_TC_SAA_DARKS_GND_PI OMPS_TC_CALCONS_T_LUT OMPS_TC_FAM_LUT OMPS_TC_OSOL_LUT OMPS_TC_PSOL_LUT OMPS_TC_SRF_LUT OMPS_TC_SRPM_LUT OMPS_TC_STRAYLIGHT_LUT	NP_NU-LM0240-130 NP_NU-LM0240-133 NP_NU-LM0240-027 NP_NU-LM0240-131 NP_NU-LM0240-132 NP_NU-LM0240-008 NP_NU-LM0240-009 NP_NU-LM0240-010 NP_NU-LM0240-011 NP_NU-LM0240-013 NP_NU-LM0240-019 NP_NU-LM0240-129 NP_NU-LM0240-015 NP_NU-LM0240-026 NP_NU-LM0240-022 NP_NU-LM0240-023 NP_NU-LM0240-021 NP_NU-LM0240-020 DP_NU-LM2020-001	Anc and Aux Data	OMPS TC RDR/SDR	Auxiliary Data - Spacecraft Data and LUTs	ProSdrOmpsTcEarth

Data Product Name	Mnemonic or Short Name, if applicable	Source SRS	Receiving SRS	Sending Function	Receiving Function
OMPS_TC_SIRR_CC_LUT OMPS_TC_WAVELENGTH_GND_PI OMPS_TC_EV_SAMPLE_GND_PI OMPS_TC_MACROT_ABLE_GND_PI OMPS_TC_LINEARITY_GND_PI OMPS_TC_TIMING_PATTERN_GND_PI OMPS_TC_SDR_CC_Intent					
SPACECRAFT-DIARY-RDR	RDRE-SCAE-C0030	Geolocation and S/C	OMPS TC RDR/SDR	ProSdrCmnGeo	ProSdrOmpsTcEarth
OMPS TC Science RDR	RDRE-OMPS-C0031	Input MSD	OMPS TC RDR/SDR	Produce Spacecraft Telemetry	ProSdrOmpsTcEarth
OMPS_TC_Mapping_Gran		OMPS TC RDR/SDR	Store/Retrieve	ProGipOmpsTcGridToGranMapping	Store Products
OMPS_TC_GIP_SNOWICE_FRACTION_GRID		OMPS TC RDR/SDR	Store/Retrieve	ProGipOmpsTcGridToGranSnowIceFraction	Store Products
OMPS_TC_SDR	SDRE-OMTC-C0030	OMPS TC RDR/SDR	Store/Retrieve	ProGipOmpsTcGridToGranSunGlint	Store Products
OMPS_TC_RAW_FLUX_AP OMPS_TC_FLAT_HISTORY_AP OMPS_TC_FLUX_AP OMPS_TC_DARKS_AP OMPS_TC_SAA_DARKS_AP OMPS_TC_CF_SOLA_R_AP OMPS_TC_BIAS_AP	NP_NU-LM0240-007 NP_NU-LM0240-003 NP_NU-LM0240-006 NP_NU-LM0240-000 NP_NU-LM0240-001 NP_NU-LM0240-005 NP_NU-LM0240-002 NP_NU-LM0240-004 NP_NU-LM0250-000 NP_NU-LM0250-002 NP_NU-LM0250-007 DP_NU-L00020-020	OMPS TC RDR/SDR	Store/Retrieve	ProSdrOmpsTcCal	Store Products

Data Product Name	Mnemonic or Short Name, if applicable	Source SRS	Receiving SRS	Sending Function	Receiving Function
OMPS_TC_WAVEMO N_AP OMPS_TC_LAMP_AU X OMPS_TC_CF_EART H_AUX OMPS_TC_BADPIXE L_AUX OMPS_TC_RMON_A UX OMPS_TC_WAVELE NGTH_AUX OMPS_TC_FLAT_PR OPOSED_UPL_AUX OMPS_TC_LIN_PROP OSED_UPL_AUX OMPS_TC_LINEARIT Y_AUX OMPS_TC_CAL_GEO OMPS_TC_CAL_SDR	NP_NU-LM0250-001 NP_NU-LM0250-005 NP_NU-LM0250-004 NP_NU-LM0250-003 OMPS-TC-Cal-GEO SDRE-OMTC-C0031				
OMPS_TC_GEO OMPS_TC_RGEO	OMPS_TC_GEO OMPS_TC_RGEO	OMPS TC RDR/SDR	Store/Retrieve	ProSdrOmpsTcEarth	Store Products

### 3.3.2 Outputs

SRS.01.04\_67 The OMPS RDR software shall generate the OMPS Nadir Total Column Diagnostic Calibration RDR from mission data packet APIIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC\_RDR><DiagCal>.

*Rationale:* The Diagnostic Calibration RDR is one of OMPS Nadir Total Column RDR products and is generated from the specified mission data packet APIIDs. APIIDs associated with the Spacecraft Diary, as defined in the JPSS Algorithm Specification Vol IV: SRS Parameter File for Geolocation and Spacecraft Orientation (474-00448-04-08), are included in the deliverable RDR.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_68 The OMPS RDR software shall generate the OMPS Nadir Total Column Diagnostic Earth View RDR from mission data packet APIIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC\_RDR><DiagEarthView>.

*Rationale:* The Diagnostic Earth View RDR is one of OMPS Nadir Total Column RDR products and is generated from the specified mission data packet APIIDs. APIIDs associated with the Spacecraft Diary, as defined in the JPSS Algorithm Specification Vol IV: SRS Parameter File for Geolocation and Spacecraft Orientation (474-00448-04-08), are included in the deliverable RDR.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_69 The OMPS RDR software shall generate the OMPS Science Nadir Total Column Calibration RDR from mission data packet APIIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC\_RDR><Cal>.

*Rationale:* The Calibration RDR is one of OMPS Nadir Total Column RDR products and is generated from the specified mission data packet APIIDs. APIIDs associated with the Spacecraft Diary, as defined in the JPSS Algorithm Specification Vol IV: SRS Parameter File for Geolocation and Spacecraft Orientation (474-00448-04-08), are included in the deliverable RDR.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_70 The OMPS RDR software shall generate the OMPS Science Nadir Total Column Earth View RDR from mission data packet APIIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC\_RDR><Science>.

*Rationale:* The Science Earth View RDR is one of OMPS Nadir Total Column RDR products and is generated from the specified mission data packet APIIDs. APIIDs 0, 8, and 11 are part of the Spacecraft Diary which is included in the deliverable RDR.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_75 The OMPS Nadir Total Column Calibration SDR software shall generate the OMPS Nadir Total Column Calibration SDR, conforming with the XML format file in Attachment A.2 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS TC RDR/SDR (474-00448-02-04).

*Rationale:* The product profile must conform to the XML format file.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_99 The OMPS Nadir Total Column SDR software shall generate the OMPS Nadir Total Column Science SDR, conforming to the XML format file in Attachment A.4 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS Total Column RDR/SDR (474-00448-02-04).

*Rationale:* The product profile must conform to the XML format file.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_117 The OMPS Nadir Total Column SDR software shall generate the OMPS Nadir Total Column Calibration SDR geolocation in conformance with the XML format file in Attachment A.1 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS Total Column RDR/SDR (474-00448-02-04).

*Rationale:* The product profile must conform to the XML format file.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_118 The OMPS Nadir Total Column SDR software shall generate the OMPS Nadir Total Column Science SDR geolocation in conformance with the XML format file in Attachment A.3 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS Total Column RDR/SDR (474-00448-02-04).

*Rationale:* The product profile must conform to the XML format file.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

### **3.4 Science Standards**

Not applicable.

### **3.5 Metadata Output**

Not applicable.

### **3.6 Quality Flag Content Requirements**

SRS.01.04\_91 The OMPS Nadir Total Column Calibration SDR software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS TC RDR/SDR, (474-00448-04-04) <NTC\_Cal\_SDR><QF>.

*Rationale:* Quality Flags must be generated based on the established flag conditions, logic, and format.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_116 The OMPS Nadir Total Column SDR software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC\_Science\_SDR><QF>.

*Rationale:* Quality Flags must be generated based on the established flag conditions, logic, and format.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_499 The OMPS Nadir Total Column SDR GEO software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC\_Sci\_GEO><QF>.

*Rationale:* Quality Flags must be generated based on the established flag conditions, logic, and format.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_500 The OMPS Nadir Total Column Calibration SDR GEO software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC\_Cal\_GEO><QF>.

*Rationale:* Quality Flags must be generated based on the established flag conditions, logic, and format.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

### **3.7 Data Quality Notification Requirement**

SRS.01.04\_84 The OMPS Nadir Total Column Calibration SDR software shall send notifications to the operator for conditions identified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC\_Cal\_SDR><Notification>.

*Rationale:* Notifications must be generated and sent based on the established logic and conditions.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

### **3.8 Adaptation**

Not applicable.

### **3.9 Provenance Requirements**

Not applicable.

### **3.10 Computer Software Requirements**

Not applicable.

### **3.11 Software Quality Characteristics**

Not applicable.

### **3.12 Design and Implementation Constraints**

SRS.01.04\_494 The JPSS Common Ground System shall execute the nadir total column calibration algorithms.

*Rationale:* The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_495 The JPSS Common Ground System shall execute the OMPS Nadir Total Column earth view radiance algorithm.

*Rationale:* The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_496 The JPSS Common Ground System shall execute the OMPS Nadir Total Column science SDR geolocation algorithm.

*Rationale:* The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

SRS.01.04\_498 The JPSS Common Ground System shall execute the OMPS Nadir Total Column calibration SDR geolocation algorithm.

*Rationale:* The CGS must incorporate algorithm changes that are supplied by the algorithm vendor.

*Mission Effectivity:* S-NPP, JPSS-1, JPSS-2

### **3.13 Personnel Related Requirements**

Not applicable.

### **3.14 Training Requirements**

Not applicable.

### **3.15 Logistics Related Requirements**

Not applicable.

### **3.16 Other Requirements**

Not applicable.

### **3.17 Packaging Requirements**

Not applicable.

### **3.18 Precedence and Criticality**

Not applicable.

## Appendix A. Requirements Attributes

The Requirements Attributes Table lists each requirement with CM-controlled attributes including requirement type, mission effectiveness, requirement allocation(s), block start and end, method(s) for verifying each requirement, verification events, etc.

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM	Verification Event
SRS.01.04_487	The OMPS Nadir Total Column algorithm shall calculate the earth view radiance with an albedo calibration accuracy of 2%.	P	SDR	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA	Maturity Level Declaration
SRS.01.04_488	The OMPS Nadir Total Column algorithm shall calculate the earth view radiance with spectral pixel-to-pixel calibration accuracy of 0.5%.	P	SDR	JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA	Maturity Level Declaration
SRS.01.04_489	The OMPS Nadir Total Column algorithm shall calculate the earth view radiance holding the out-of-band stray light to less than 1% at all wavelengths.	P	SDR	JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA	Maturity Level Declaration
SRS.01.04_658	The OMPS Nadir Total Column algorithm shall calculate the earth view radiance over the wavelength range of 302 to 382 nm.	P	SDR	S-NPP	algorithm provider	2.0.0	3.0.0	Test	NA	Maturity Level Declaration
SRS.01.04_490	The OMPS Nadir Total Column algorithm shall calculate the earth view radiance over the wavelength range of 300 to 420 nm.	P	SDR	JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA	Algorithm Readiness Review
SRS.01.04_659	The OMPS Nadir Total Column algorithm shall calculate the earth view radiance with a horizontal cell size of 50 km at nadir.	P	SDR	S-NPP	algorithm provider	2.0.0	3.0.0	Test	NA	Maturity Level Declaration
SRS.01.04_491	The OMPS Nadir Total Column algorithm shall calculate and/or aggregate the earth view radiance with a horizontal cell size of 50 km or less at nadir.	P	SDR	JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Test	NA	Algorithm Readiness Review
SRS.01.04_661	The OMPS Nadir Total Column	P	GEO	S-NPP	algorithm	2.0.0	3.0.0	Test	NA	Maturity

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM	Verification Event
	SDR Geolocation algorithm computation shall have a one-sigma mapping uncertainty of 5 km.			JPSS-1 JPSS-2	provider					Level Declaration
SRS.01.04_73	The OMPS Nadir Total Column Calibration SDR software shall incorporate a computing algorithm provided for TC Science calibration data.	Ap	SDR	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA	Maturity Level Declaration
SRS.01.04_492	The OMPS Nadir Total Column SDR software shall incorporate a computing algorithm provided for earth-view radiances.	Ap	SDR	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	3.0.0	Inspection	NA	Maturity Level Declaration
SRS.01.04_493	The OMPS Nadir Total Column SDR software shall incorporate a computing algorithm provided for auxiliary science and calibration parameters reported in the SDR.	Ap	SDR	S-NPP JPSS-1 JPSS-2	algorithm provider	2.0.0	2.0.0	Inspection	NA	Maturity Level Declaration
SRS.01.04_107	The OMPS Nadir Total Column SDR software shall set the <FillField> values to <FieldValue> for <FillCondition> specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC_Science_SDR><fill>.	E	SDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_76	The OMPS Nadir Total Column Calibration SDR software shall incorporate inputs specified in Table 3-1.	I	SDR	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Inspection	NA	TBD
SRS.01.04_100	The OMPS Nadir Total Column SDR software shall incorporate inputs specified in Table 3-1.	I	SDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_119	The OMPS Nadir Total Column SDR Geolocation software shall incorporate inputs specified in Table	I	GEO	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM	Verification Event
	3-1.									
SRS.01.04_662	The OMPS Nadir Total Column SDR software shall ingest input tables and coefficients formatted in accordance with Section 7 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS NP RDR/SDR (474-00448-02-04).	Ft	SDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_67	The OMPS RDR software shall generate the OMPS Nadir Total Column Diagnostic Calibration RDR from mission data packet APIIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC_RDR><DiagCal>.	F	RDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_68	The OMPS RDR software shall generate the OMPS Nadir Total Column Diagnostic Earth View RDR from mission data packet APIIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC_RDR><DiagEarthView>.	F	RDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_69	The OMPS RDR software shall generate the OMPS Science Nadir Total Column Calibration RDR from mission data packet APIIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC_RDR><Cal>.	F	RDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM	Verification Event
SRS.01.04_70	The OMPS RDR software shall generate the OMPS Science Nadir Total Column Earth View RDR from mission data packet APIDs specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04)<NTC_RDR><Science>.	F	RDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_75	The OMPS Nadir Total Column Calibration SDR software shall generate the OMPS Nadir Total Column Calibration SDR, conforming with the XML format file in Attachment A.2 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS TC RDR/SDR (474-00448-02-04).	F	SDR	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Demonstration	NA	TBD
SRS.01.04_99	The OMPS Nadir Total Column SDR software shall generate the OMPS Nadir Total Column Science SDR, conforming to the XML format file in Attachment A.4 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS Total Column RDR/SDR (474-00448-02-04).	F	SDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_117	The OMPS Nadir Total Column SDR software shall generate the OMPS Nadir Total Column Calibration SDR geolocation in conformance with the XML format file in Attachment A.1 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS Total Column RDR/SDR (474-00448-02-	Fg	GEO	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Demonstration	NA	TBD

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM	Verification Event
	04).									
SRS.01.04_118	The OMPS Nadir Total Column SDR software shall generate the OMPS Nadir Total Column Science SDR geolocation in conformance with the XML format file in Attachment A.3 of the JPSS Algorithm Specification Vol II: Data Dictionary for OMPS Total Column RDR/SDR (474-00448-02-04).	Fg	GEO	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_91	The OMPS Nadir Total Column Calibration SDR software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS TC RDR/SDR, (474-00448-04-04) <NTC_Cal_SDR><QF>.	Q	SDR	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Analysis	NA	TBD
SRS.01.04_116	The OMPS Nadir Total Column SDR software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC_Science_SDR><QF>.	Q	SDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_499	The OMPS Nadir Total Column SDR GEO software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC_Sci_GEO><QF>.	Q	GEO	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT

Req ID	Requirement Text	Level 3 Type	Product Type	Mission Effectivity	Allocated To	Block Start	Block End	Block 2.0.0 VM	Block 2.1.0 VM	Verification Event
SRS.01.04_500	The OMPS Nadir Total Column Calibration SDR GEO software shall report for each <FlagScope> quality flags using <FlagLogic> as specified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC_Cal_GEO><QF>.	Q	GEO	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Analysis	NA	TBD
SRS.01.04_84	The OMPS Nadir Total Column Calibration SDR software shall send notifications to the operator for conditions identified in the JPSS Algorithm Specification Vol IV: SRSPF for OMPS Total Column RDR/SDR (474-00448-04-04) <NTC_Cal_SDR><Notification>.	N	SDR	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Test	NA	TBD
SRS.01.04_494	The JPSS Common Ground System shall execute the nadir total column calibration algorithms.	Ai	SDR	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Test	NA	TBD
SRS.01.04_495	The JPSS Common Ground System shall execute the OMPS Nadir Total Column earth view radiance algorithm.	Ai	SDR	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_496	The JPSS Common Ground System shall execute the OMPS Nadir Total Column science SDR geolocation algorithm.	Ai	GEO	S-NPP JPSS-1 JPSS-2	CGS	2.0.0	3.0.0	Inspection	NA	2.0.0-AAT
SRS.01.04_498	The JPSS Common Ground System shall execute the OMPS Nadir Total Column calibration SDR geolocation algorithm.	Ai	GEO	S-NPP JPSS-1 JPSS-2	GRAVITE	2.0.0	3.0.0	Test	NA	TBD